

CLAIMS

1. A system for use with an electronic appliance configurable for use with an IEEE 1394 serial bus, comprising:

an IEEE 1394 compliant electrical device; and,

a circuit electronically coupled with said electrical device and configured to cause a reset signal to be generated when a power status of the electronic appliance changes;

wherein said electrical device and said circuit are configured to be coupled with the IEEE 1394 serial bus and the electronic appliance.

2. A system according to claim 1, wherein the electrical device comprises an integrated circuit.

3. A system according to claim 1, wherein the electrical device controls a physical layer and the reset signal causes the physical layer to be reset.

4. A system according to claim 3, wherein the reset of the physical layer causes a self-ID command to be generated on the IEEE 1394 serial bus.

5. A system according to claim 4, wherein the electrical device controls a link layer.

6. A system according to claim 5, wherein the self-ID command includes a status of the link layer.

7. A system according to claim 1, wherein the circuit comprises an integrated circuit.

8. A system for use with an electronic appliance configurable for use on an IEEE 1394 network, comprising a circuit configured for use with an IEEE 1394 compliant electrical device, wherein said circuit is configured to be coupled with the IEEE 1394 network and the electronic appliance, wherein said circuit is configured to cause a reset signal to be generated when a power status of the electronic appliance changes, and wherein said reset signal causes the network to reset.

9. A system according to claim 8, wherein the circuit comprises a logic circuit.

10. A system according to claim 8, wherein the circuit comprises an interface circuit, arbiter circuit, processing circuit, communications circuit, or data conversion circuit.

11. A system according to claim 8, wherein the circuit and the electrical device are contained on an IEEE 1394 compliant integrated circuit chip.

12. A system according to claim 8, wherein the appliance has a link layer, and wherein the reset of the network causes a link layer status signal to be generated.

13. A system for communicably coupling plural electronic appliances comprising:

an IEEE 1394 compliant serial bus; and,

at least one circuit containing one or more IEEE 1394 compliant electrical devices; wherein said at least one circuit is configured to be coupled with the IEEE 1394 compliant serial bus and one or more of said plural electronic appliances, wherein said circuit is configured to cause an appliance reset signal to be generated when a power status of the one or more of said plural electronic appliance changes, and wherein said appliance reset signal causes the IEEE 1394 serial bus to reset.

14. A system according to claim 13, wherein the electrical devices comprise integrated circuits.

15. A system according to claim 13, wherein the circuit and the electrical devices comprise an IEEE 1394 compliant integrated circuit.

16. A system according to claim 13, wherein the electrical device has a physical layer, and wherein the appliance reset signal causes the physical layer to reset, and wherein the reset of the physical layer causes the serial bus to reset.

17. A system according to claim 13, wherein said reset of the serial bus causes each electronic appliance coupled to the serial bus to generate an updated status signal in compliance with IEEE 1394 protocols.

18. A system according to claim 17, wherein said updated status signal is a portion of a self-ID signal.

19. A system according to claim 18, wherein the appliance has a link layer, and wherein said self-ID signal comprises a link layer status signal.

20. A system according to claim 19, wherein said appliance has a physical layer, and wherein the physical layer receives power from a supply available through the IEEE 1394 serial bus.

21. An electronic appliance configured for use on a network comprising:
a processor; and, a circuit for monitoring a power supply status of the electronic appliance; wherein said circuit is coupled with the processor and configured to cause an appliance reset signal to be generated when a power status of the electronic appliance changes.

22. The electronic appliance of claim 21, wherein the appliance reset signal causes a network reset.

23. The electronic appliance of claim 21, wherein said network comprises an IEEE 1394 compliant serial bus network.

24. The electronic appliance of claim 23, wherein the reset signal causes the IEEE 1394 serial bus network to reset.

25. A system for increasing the efficiency of data transfer between appliances coupled to an IEEE 1394 serial bus network, comprising:

means for monitoring a power condition of an electronic appliance on an IEEE 1394 serial bus network; and,

means for generating a reset signal on said serial bus network when said power condition changes.

26. A method of operating electronic appliances, comprising:

coupling an electronic appliance to a data transfer network;

monitoring a status of a power supply of said electronic appliance; and,

transmitting a signal on the data transfer network when said status changes.

27. A method according to claim 26, wherein said coupling an electronic appliance to a data transfer network comprises coupling an electronic appliance to an IEEE 1394 compliant serial bus network.

28. A method according to claim 27, wherein transmitting a signal comprises transmitting a physical layer reset signal on the serial bus network.

29. A method according to claim 28 further comprising in response to said transmitting, generating a serial bus network reset signal.

30. A method of operating electronic appliances, comprising:
coupling at least one appliance to a data transfer network;
monitoring a condition of the at least one appliance; and,
sending a signal over the network when the condition of the at least one appliance changes wherein said signal causes information about said condition of the appliance to be available on the network.

31. A method according to claim 30 further comprising, in response to said sending, generating a network wide self-identification signal.

32. A method according to claim 30, wherein said sending a signal comprises sending a physical layer reset signal on an IEEE 1394 compliant network.

33. A system for use with a network in coupling appliances together, comprising a circuit for monitoring a condition of an appliance, wherein said circuit is configured for use on the network and configured to utilize existing network protocols to provide data on the network regarding a change of the condition of the appliance, where the data relates to a condition not included in the network protocols.

34. A system according to claim 33, wherein the condition is a power status condition.

35. A system according to claim 33, wherein the network is an IEEE 1394 compliant serial bus network.

36. A system according to claim 35, wherein the appliance has a physical layer and the circuit causes a physical layer reset when said change of condition is detected.

37. A system according to claim 36, wherein the network protocols comprise a network wide self-ID when said physical layer reset is generated.

38. A system for communicably coupling electronic appliances:
a network for data transfer, said network having operating protocols;
and,

at least one circuit for monitoring a condition of an appliance not included in the operating protocols;

wherein said at least one circuit is configured to be coupled with the network and the electronic appliance and wherein said circuit is configured to cause data regarding the monitored condition of the electronic appliance to be sent over the network when a status of the electronic appliance changes.

39. A system according to claim 38, wherein the network comprises an IEEE 1394 compliant serial bus network.

40. A system according to claim 39, wherein the circuit contains an IEEE 1394 compliant circuit.

41. A system according to claim 38, wherein the status comprises a power status.

42. A system according to claim 38, wherein the data causes a network reset.

43. A system according to claim 42, wherein the network reset causes a self-identification signal to be generated on the network.

44. A system according to claim 43, wherein the appliance has a link layer and the self-ID includes a status of the link layer.

45. A system according to claim 38, wherein the circuit comprises a logic circuit.